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Types of Acne and Associated Therapy: A Review

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Abstract:

Introduction: Acne is a chronic inflammatory disease of the pilosebaceous follicle, which affects a large number of people at all ages, from birth to adulthood. Although it is a benign dermatological change, it has a huge impact and long-term in patient's lives, including problems in psychosocial development, low self-esteem and emotional stress. The delay in seeking medical help aggravates the physical and psychological injuries, so it is pertinent to demystify the disease and highlight all forms of treatment and its effectiveness.

Objectives: Make a systematic review of all studies in the last nine years, in order to alert the public to the implications of pathology in the patient's life, addressing the various forms of treatment.

Methods: Resorted to the systematic literature review and analyzed the various hypotheses concerning the therapeutic. Data collection was performed by searching for articles on online platforms Pubmed, Google Scholar, b-on and SciELO and consulting manuals and periodicals reference between October 2013 and July 2014.

Results: Using 16 studies, it is emphasized that the information about acne is still quite weak, the psychological impact is strongly exaggerated and that the therapy used is untested as to its effectiveness.

Discussion: Nowadays there is a wide variety of pharmacological resources available and their effectiveness depends on the type and form of the disease, early treatment and adherence.

Conclusions: The field of dermatology is quite neglected and forgotten because there are few comparative clinical studies proving the effectiveness of therapy when applied to humans, and the existing information is very general and doesn't apply to specific cases. It is important to develop studies for the creation of new effective substances with high tolerability, fewer side effects and accessible to the entire population.

Keywords: Acne, physiopathology, therapy, efficacy/effectiveness.

Introduction

Acne is a chronic inflammatory disease of the pilosebaceous follicle that affects about 85 % of adolescents. It is estimated that the prevalence of the disease is about 1-12 % in the adult males and 12-17% in adult females. It is more frequent and severe in males, but more persistent in women.[1,2]

The disease has four main causes: sebaceous hyperplasia and hyperseborrhoea; hyperkeratinization and consequent keratinocyte accession; colonization of Propionibacterium acnes (P. acnes) and respective Staphylococcus albus and inflammation and immune response. The production of sebum by sebocytes is stimulated by androgens, such as testosterone, which in turn stimulate the production of sebocytes. The type I 5α - reductase, present in sebocytes, converts androgens into a more active molecule, 5α - dihydrotestosterone (5α -DHT), which stimulates production and differentiation of sebocytes with subsequent rupture and release sebum, called hyperseborrhoea. The defects in the differentiation of keratinocytes and scaling result in increasing its stickiness, are the cause of clogging of the follicle, which prevents the flow of sebum and leads to the formation of the blackhead.[2–6]

The blackhead is the primary lesion of acne, characterized by the appearance of a slight bulge on the skin intact and can be classified into closed when the follicle blocks the drain hole and the sebum tends to rupture or open when it is distended and is commonly dubbed the "black spot". The black color is due to the oxidation of lipids contained in the blackhead, the accumulation of melanin and the cells. The accumulation of sebum in the hair follicle promotes proliferation of P. acnes, an anaerobic bacterium and normal resident skin. This bacterium produces the lipase responsible for the metabolism of lipids in sebum free fatty acids, which have pro - inflammatory properties. At this stage, acne is considered non-inflammatory. Substances with proinflammatory properties, together with hyperproliferative keratinocytes may leak into the dermis culminating in a cascade of immune events in the inflammatory response. The disruption occurs because of the enzymes produced by P. acnes, which will increase the permeability of the wall and alter the follicular epithelium. Furthermore, this

bacteria release chemotactic factors that attract neutrophils to the blackhead, causing inflammatory lesions characteristic of inflammatory acne. Neutrophils can be added to the surface and cause pustules, characterized by the appearance of inflammation and pus. When inflammation is deep, papules are formed, pustules similar to, but with erythema and edema. If there is extensive inflammatory infiltration, the nodules are formed, hot and soft texture and which can be hemorrhagic or suppurative, giving rise to the cysts. All these lesions can converge in a single injury, the scar, an indoor irregular depression of atrophic skin and telangiectasia, resulting from the destruction of the pilosebaceous follicles by inflammatory reaction.[2,4,5]

Thus, acne is classified as the lesions in comedonica (level I), papular- pustular (level II) and nodular (levels III, IV and V) and in severity in mild, moderate, moderate to severe, severe and serious (Table 1). The lesions are located predominantly on the face, neck, chest and back, places with more follicles.[3,7]

Table1. *Clinical classification of acne*[2–7]

	Injury type	Type of Acne	Degree	Gravity
Non inflammatory	Blackhead	Comedonica	I	Mild
Inflammatory	Pimple	Papular-pustular	II	Moderate
	Pustule			
	Nodule	Nodular	III	Moderate to Severe
	Cyst		IV or conglobata	Severe
	Scar		V or fulminant	Serious

In addition to inducing physiological aspects of acne, there are other variants of it, such as, acne induced by drugs, in particular corticosteroids, anticonvulsants and tuberculostatic. Guedes et al, in 2009, reported a case of acne induced by amineptine, a tricyclic antidepressant, which is characterized by disfiguring and monstrous lesions. Neonatal acne, caused by the passage of maternal androgens to the baby through the placenta, affects newborn babies of 2 to 3 months. Contact acne caused by the use of cosmetics and medicines expropriated topics. Mechanical acne, pressure induced localized skin by an object or aggressive washing. Excoriated acne, the most common in adolescents when they tend to squeeze and blast injuries. Tropical acne caused by environmental factors such as heat, sun and humidity. During pregnancy, women's skin suffers intense immune, endocrine, metabolic and vascular changes and becomes more susceptible to physiological and pathological changes, such as acne. But according to Coutinho et al, in 2012, in a study of 124 pregnant women in four health units in São Paulo, Brazil, 3.5 % reported a decrease in acne during pregnancy.[2,4,8,9]

Many authors say that the diet doesn't influence the appearance of acne and that such a statement is nothing but a myth. However, Costa et al (2010), based on various literature reviews, said the not westernized people do not suffer from acne, because their food doesn't include processed foods, such as dairy products, refined sugars and oils. Smith et al also found, in a clinical trial, in which a group was exposed to a diet with low glycemic load (GL) and a control group to a diet with high GL, that after 12 weeks, the group with low diet GL presented a significant reduction in the number of acne lesions.[2,4,10,11]

Although the diagnosis of acne is a relatively easy rule, the various forms may require a differential diagnosis.[3]

The skin hygiene is of utmost importance for the acne patient because most used treatments cause dryness, peeling, irritation and redness of the skin, so hygiene is an important ally in controlling these negative effects. It is intended that this process will minimize or eliminate the side effects, which does not exacerbate acne, which is compatible with the prescribed anti-acne therapy and to improve adherence to therapy. It also allows us to prepare the skin for the treatment and restore the physiological properties of the organ. The used products will remove excess skin sebum and should contain few detergents, as well as being soft and emollients.

So, we should use to O / W emulsions, pains or syndets. Soaps and toilet soaps should be avoided because they remove the hydrolipidic film, dry skin, increase skin pH and are also sensitizers and photosensitizers.[2]

Cosmetics can also be used after cleaning, as a treatment of the simplest forms of acne or as adjuvant therapy of the anti-acne treatment. Should be oil free and non comedogenic, in which the majority are already water / silicone, which is, silicone, while in contact with the skin evaporates and only the aqueous phase remained. They allow the reduction of sebum production and inflammation, decrease hyperkeratinization, soothe the skin and hydrate it. The used formulations are milks, emulsions,

tonics and moisturizing creams. Considering the impact that injuries cause in day-to-day life and in the lives of patients, the pharmaceutical industry has developed many strategies, such as, makeup oil free and non comedogenic specific for oily / acne prone skin, which allows disguising acne, not aggravating it.[2]

The sun, although camouflage acne lesions, promotes the hyperkeratinization and therefore exacerbates acne. It is also known that most anti-acne products are therapeutic photosensitizers. It is therefore of utmost importance to use solar protection.[2]

Treatment may be topical, systemic and even surgery (Table 2). The choice of the optimal treatment depends on the injury and the patient's tolerability. Sometimes the three types of treatment are concomitantly used so that there is an increased success of therapy and fast control of the lesions.[3]

Involved therapeutic agents are topical retinoids; azelaic acid; adapalene; keratolytic; antibiotics; benzoyl peroxide; oral isotretinoin and hormones.[2,7,12]

Topical retinoids, such as tretinoin, isotretinoin and adapalene, are well tolerated and less aggressive drugs. They normalize the desquamation of the epithelium, inhibiting the formation of blackheads, have anti-inflammatory properties and increase the skin penetration of other therapeutic substances for acne. As they treat, they also prevent the appearance of new lesions and, if combined with other drugs, increased clinical efficacy. Topical retinoids are derivatives of vitamin A and are indicated in mild to moderate acne, reducing injury from 40 to 70%. However, they may cause irritation and dry skin.[3,12,13]

The adapalene, which is a derivative of naphthenic acid, has properties that allow controlling the differentiation and cell proliferation, preventing and eliminating blackheads and treating inflammation. The big advantage is that it is not photosensitive, being very useful in countries with many hours of sunlight.[2,7,14]

Benzoyl peroxide (BP) has a similar effect to that of topical antibiotics, with the peculiarity of not developing bacterial resistance, so that, in this moment is the most widely used topical antimicrobial either alone or in combination with topical retinoid. The BP reduces the population of P. acnes, has anti-inflammatory properties, is comedolytic and reduces sebum production. It may cause erythema, local anesthesia and is sensitizing. When combined with topical retinoid, covers all aspects of pathology. Within a few days of use, the BP can reduce up to 90% of the population of P. acnes.[3,6,12]

Azelaic acid is a dicarboxylic acid, and has an antimicrobial effect when used at a concentration of 20%.[2]

The most commonly used keratolytic are salicylic acid 3 to 10% (beta-hydroxy acid), glycolic acid 5 to 30% (alpha-hydroxy acid); they have an exfoliating action, reduce intracellular cohesion, avoiding the retention of sebum and allow the penetration of other substances.[2,7,15]

Topical antibiotics, such as erythromycin and clindamycin, have a bacteriostatic effect on P. acnes, and in addition, will also have an important role in inflammation and immune response. If this therapy is combined with BP, there is an additive effect which prevents the emergence of bacterial resistance.[6]

All topical products used to treat acne are likely to cause some local irritation and should be placed in the evening and used for about 12 weeks to prevent relapses, though they can produce results after 4 weeks.[3,13]

Oral therapy is usually used in combination with topical or when the topical non presents results, and includes antibiotics, isotretinoin, and hormones.[7,12]

Oral antibiotics are used mainly in moderate to severe acne, exhibit the same therapeutic properties as topical antibiotics and are also well tolerated, showing how great advantageously a faster onset of action. The most commonly used substances are minocycline, doxycycline and erythromycin. With the exception of erythromycin, all other substances are phototoxic, so it is advisable to use sunscreen.[2,3,5,12,13]

Oral isotretinoin is a retinoid used in severe acne or when none of the treatments presents clinical results. It is why this is the most effective and aggressive treatment. Isotretinoin decreases the activity of the sebaceous glands, with consequent reduction of sebum, normalizes the desquamation of epithelium, has anti-inflammatory action and reduces the population of P. acnes. In addition, it prevents the appearance of new lesions and reduces the pore diameter. It is the most effective drug on the market to cure this disease in about 85% of cases. However, it presents quite bothersome side effects that may condition its management, as xerosis, eye dryness, redness, peeling, and sensitivity to sunlight, increased fragility of the skin, dehydration and cheilitis. To minimize the negative aspects of medication should be used a moisturizer, emollient and soothing, face and body and sun protection. These products must comply with acne-prone skin characteristics. It should be noted that isotretinoin is teratogenic and, therefore, requires the use of additional contraception from the beginning and up to 2 years after the cessation of treatment, can also cause psychological disorders.[2,3,5,7,13,16]

Hormone therapy is used in non-pregnant women in situations of severe acne and includes substances such as ethinyl estradiol, cyproterone acetate, dienogest, chlormadinone and drospirona. These substances promote the reduction of sebum production, so that can cause xerosis.[2,7,12]

Table2: *Summary of the recommended treatment European S3 guidelines*[17]

(adapted from Nast et al., 2012)

Degree of recommendation	Comedonica	Papular-pustular	Nodular	Serious
Strongly recommended	n.d*	Adapalene+BP** or BP+ Clindamycin	Isotretinoin	Isotretinoin
Moderately recommended	Topical Retinoids	Azelaic Acid or BP or Topical Retinoids or SA***+Adapalene	SA+Adapalene or SA+ Azelaic Acid or SA+Adapalene+BP	SA+ Azelaic Acid
Weakly recommended	Azelaic Acid or BP**	Light Blue or Oral Zinc or Topic Erythromycin + Topic Isotretinoin or Topic Erythromycin + Tretinoin or SA+BP or SA+ Azelaic Acid or SA+Adapalene+BP	SA+BP	SA+BP or SA+Adapalene or SA+Adapalene+ BP
Alternatives	n.d	n.d	Anti-androgens + Topical therapy or anti-androgens + SA	Anti-androgens + SA

*n.d: non defined; **BP: Benzoyl peroxide; ***SA: Systemic antibiotic

Surgical treatment applies when lesions are so warrant, such as cysts and scars, and includes techniques such as peels, dermabrasion, surgery or fillers in order to correct and / or eliminate the scars.[12]

The photodynamic therapy and others that use lasers and light sources use different types of light at various powers, as a treatment or alternative to conventional treatment.[13]

Systemic corticosteroids, such as prednisolone and dapsone are indicated in severe inflammatory acne situations in which patients have systemic inflammatory manifestations.[7,18]

In the treatment of acne during pregnancy and breastfeeding, therapeutic possibilities include topical therapy BP, erythromycin, azelaic acid, peeling and laser phototherapy. In the case of treating severe acne (at dosages adjusted and medical control), substances commonly used in oral therapy are erythromycin and corticosteroids.[7,8]

The zinc ascorbate has been show quite effective, since it inhibits the growth of P. acnes.[19]

Although acne is a benign dermatological change, it has a huge psychological impact and long-term in patient's lives, namely, problems in psychosocial development, low self-esteem and emotional stress. It is therefore important to assess the impact of acne on quality of life of patients, using psychometric instruments such as questionnaires.[2,20,21]

Dermatologists, validated questionnaires most widely used are the Dermatology Life Quality Index (DLQI) that evaluates the quality of life in patients over 16 years in a score of 0-30; the Children's Dermatology Life Quality Index (CDLQI), the version of the DLQI for children from 4 to 16 years; Cardiff Acne Disability Index (CADI), directed to teenagers and young adults, whose score ranges from 0-15; and Acne-Specific Quality of Life Questionnaire (Acne-QoL), used in clinical trials of facial acne, consisting of 19 questions divided into four areas (self-perception, and emotional and social impact symptoms of acne) whose score ranges from 0 the 114. Higher as that caveat is the score, the greater the impact of the disease on patient's life.[20–23]

Although there are numerous studies about acne, there are few those who meet in an objective, clear and condensed the vast information that exists about the disease and the various aspects and treatment alternatives in a single product. Therefore, it is pertinent to approach this issue throughout this article.

The objective of this article is an updated and comprehensive approach to drug therapies and non-pharmacological acne that patients may resort to treat the disease.

Material and methods

This article is based on a systematic literature review without meta-analysis. To prepare this article, data collection was made through research articles on online platforms PubMed (US National Library of Medicine National Institutes of Health), Google Scholar, b-on (online library of knowledge) and SciELO (Scientific Electronic Library Online), making use of the keyword "acne; treatment; effectiveness" and consulted manuals and periodicals reference in the area. The survey was conducted in the period from October 2013 to July 2014, focusing on recent, updated and with scientific rigor information. They were excluded articles that did not provide the full text free, which proved inconclusive, or whose content was not relevant to the theme (Figure 1).

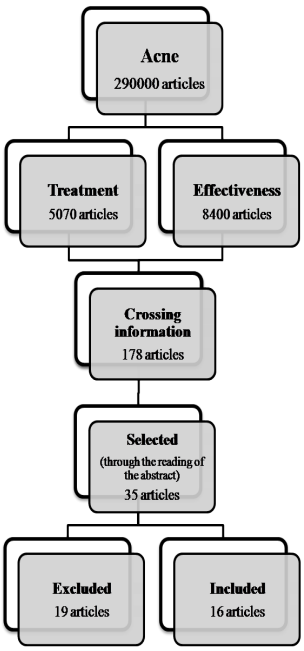

Fig1. *Information selection method*

Results

The results regarding the current therapy and the impact of acne on quality of life of patients are summarized in 16 studies described below.

Walker and Lewis-Jones in 2006 assessed the decreased quality of life of 200 Scots teenagers between 15 and 18 applying two questionnaires. Acne was present in 83% of adolescents, of whom 54% were male and 46% female. Half of the respondents said they were emotionally-affected by acne, particularly because of the appearance of the skin (45%), which impairs their social life (20%). In addition to the decrease in school performance, 10% of teens said they were bullied. Some reported during sleep disorders due to illness (6%). Regarding the used treatment, 75% use OTC (over the counter medicine) but only 33% find them effective, 15% use prescription drugs by the doctor and 66% of them think quite effective.[23]

Arruda et al, in 2009, evaluated 60 patients, 30 treated with blue light and the remaining 30 to 5% benzoyl peroxide with the aim to test the safety and efficacy of blue light relative to benzoyl peroxide. By having photographs base and counting the number of lesions found that the reduction in number of lesions was similar in both treatments, regardless of the type of injury, but treatment with blue light showed less side effects.[24]

Junior et al, in 2009, conducted a study on 20 patients who isotretinoin bought at the pharmacy, which aimed to evaluate the existence of monitoring of isotretinoin and detect possible adverse reactions in patients undergoing treatment. Note that 20% of patients had no clarification of the drug, of which 75% were female. Based on the responses, they found that the monitoring is still weak, which cause various risk may factor such as birth defects in pregnant women and / or changes in organs or systems.[25]

Mühlmann et al conducted a study, in 2010, with duration of 5 months, in 8 patients with acne scars. The objective was to assess the benefit of treatment of scars using the technique of "CROSS" (chemical reconstruction of acne scars) and compare the use of two substances in the art, trichloroacetic acid (ATA) at 90% and 88% phenol. It was observed that burning sensation and erythema that arises in the application site are more intense and lasting apparent when applying the ATA. Also the treated skin re-epithelialization takes longer with ATA. They concluded that most patients showed better cosmetic results in hemi facial was used where 88% phenol.[26]

Brito et al in 2010 included 150 patients clinically diagnosed with acne undergoing treatment with oral isotretinoin, in a study to assess the tolerability of oral isotretinoin, having regard to the lipid metabolism, liver function and adverse reactions. Of the 150 patients, 48% were female and 52% male and the age ranged from 15 to 32 years. As for cutaneous and mucosal adverse effects of isotretinoin, the cheilitis was the most frequent, occurring in 94% patients. Cholesterol levels, triglycerides and transaminases were evaluated and did not show significant changes over treatment.[27]

Addor and Schalka, in 2010, conducted a study with the objective of analyzing the prevalent characteristics in adult women with acne without hyperandrogenism. 116 female patients with normal hormonal profile were included, with mean age of 33.9 years and moderate acne grade II. It was concluded that topical retinoids were the most prescribed substances and systemic medication was prescribed in 53.4% of patients. A complete regression was observed in 31 patients (26.7%) up to 12 weeks of treatment. There have been adverse reactions to topical treatment in 21.5% of patients, like skin irritations.[28]

Borges et al, in 2011, through cross-sectional study, evaluated patient charts of data that used oral isotretinoin, through the Exceptional Drug Pharmacy (Farmex), and framed in the study results for the total cholesterol dosing and fractions (HDL and LDL), triglycerides and liver enzymes (ALT and AST). The sample included those who underwent treatment between 2002 and 2009, a total of 721 patients. Of all patients, 15.27% had elevated serum triglycerides; 19.95% developed hypercholesterolemia; 12.55% had elevated ALT and 26.3% evolved with increased AST; 1.66% had an abnormal laboratory value which required cessation of therapy.[29]

Poli et al, in 2011, applied a questionnaire to 852 French teenagers between 12 and 25 to evaluate their knowledge about the disease. Of those surveyed, 66.2% had acne, 50.2% in moderately and 16% in severe form. Most said sex, overweight, intake of dairy products and physical activity does not influence acne, frequent washing and improved acne. Eating chocolate and savory smoke, sweat, poor hygiene, squeeze pimples, eating fatty foods, use makeup, pollution and menstruation they were said to be factors that aggravate acne. Most (80.8%) say that acne is not a disease but rather a normal adolescent phase, although 69.3% agree that they should be treated, with a marked preference for the systemic treatment instead of the topic. Many respondents with acne (38.6%) never consulted the doctor, although about two-thirds of respondents were interested in learning more about acne.[30]

Pereira et al, in 2011, reported a case of a 15 year old patient with acne vulgaris since age 11, having performed several topical and systemic treatments, but without great results. Two months after the start of treatment with isotretinoin appeared inflamed and painful lesions on the chest and on the back, numerous erythematous nodules, peep-bloody discharge and exulcerations covered with scabs, weight loss and arthralgia. The diagnosis was acne fulminans induced by isotretinoin.[31]

Tago et al, in 2011, reported a case of a 20 year old Japanese girl who suffered from acne vulgaris and that within 5 years developed acne fulminans. After several treatments failed, only oral combination of cyclosporine A and prednisolone was effective and allowed the almost complete remission of the disease in two years. Note that the use of isotretinoin is not allowed in Japan.[32]

Iinuma et al, in 2011, tested the effectiveness of zinc ascorbate in the treatment of acne vulgaris. To this 41 colonies of P. acnes used, sensitive to clindamycin and / or clindamycin resistant isolated from the patient tested lesions. They showed that the zinc ascorbate has antimicrobial activity against P. acnes at concentration of 0.064%. Moreover, the combination of zinc ascorbate, clindamycin, erythromycin and chloramphenicol shows an additive effect. In monotherapy, zinc shows effectiveness in inhibiting the growth of P. acnes, including those resistant to clindamycin.[19]

Likes et al, in 2012, underwent 3 individuals with acne vulgaris grade I, II and III to the application of salicylic acid peels to 20% over 10 sessions and concluded that there was a decrease in the number of lesions and the degree of acne.[33]

Tasoula et al, in 2012, applied a questionnaire adapted from the CDLQI in 1531 adolescents between 11 and 19 years of age, in order to assess the impact of acne vulgaris and its seriousness in quality of life of young adolescents in Greece. They reported that the prevalence of acne was 51.2%, equally affecting both sexes. Mild acne was present in 71.2% and moderate to severe in 28.8% of the population. The average age of the study population was 15.77 years and the average score of CDLQI was 4.02. Impact of acne on quality of life is associated with the severity of acne. Patients with moderate to severe acne suffer greater psychosocial and emotional impact; body and modified image is proportional to the severity of acne; symptoms and treatment of acne are factors that also influence the quality of life.[34]

Lages et al, in 2012, reported a case of acne fulminans in a 15 year-old who, after 21 days of daily use of prednisolone 1 mg / kg and 100 mg dapsone, suffered a highly noticeable reduction of ulcerative lesions and re-epithelialization of scars.[18]

Montenegro et al, in 2013, evaluated the composition of topical formulations for the treatment of acne dispensed in five compounding pharmacies in the city of Feira de Santana - Brazil. A total of 402 formulations were evaluated. In the data analysis, it was found that retinoic acid was the most used substance and most prescribed dosage forms were gel (39.1%)

and cream (29.6%). Approximately 31% of the formulations contained two or more active groups. Evaluation of the concentration ranges indicated above some active values appropriate to the usual concentrations, but most formulations (96.5%) showed no incompatibilities, performing correct as aspects related to the concentration of substances association, vehicles or excipients used and thus reliable for use in treating acne.[35]

Kamamoto et al in 2014 tested the validity, internal consistency and reproducibility of Acne-QoL in Brazil. For that applied the questionnaire to 8 individuals with mean age of 20.5 years, 33.8% with mild acne, 36.2% with moderate acne and 30% with severe acne. They concluded that the score was similar for the different degrees of acne, except for the social domain. Individuals with low acne duration have higher scores, thus confirming the validity of satisfactory questionnaire.[21]

Discussion

Since acne is a disease that affects a major part of the population and which has such great repercussions that can leave deep marks on self-esteem and social life of those affected, it is fundamental that information on the various therapeutic hypotheses that can be called upon in order to regress the disease. Knowledge of the effectiveness of the pharmacological treatment that we have hitherto based on what is known about the pathophysiology. It is known that there is still much to investigate about the disease, namely inflammation, the influence of diet and genetic factors.

The goals of treatment are to eliminate and prevent injuries, prevent scarring, improve the appearance of the patient and reduce the psychological effects.

In order to improve adherence to treatment it is important that the doctor approaches the subject, in order to demystify myths and doubts, reassure the patient and establish a trust relationship for it to feel actively involved.[5]

It is important to note that for a therapeutic success is to start the treatment as early as possible and after the main treatment, do maintenance treatment with topical agents to prevent recurrences.[3-6] Besides a good therapeutic, is education of the patient and the promotion of accession.

Conclusion

The field of dermatology is rather neglected and forgotten. Few comparative clinical studies proving the effectiveness of therapy when applied to human beings and the existing information is very general and does not apply to specific cases. The fact that the conditions of this clinical specialty are exposed because they affect the largest organ of the human being brings plenty of implications related to the quality of life of patients. It is therefore of utmost importance and urgency that are effective and safe strategies to minimize the suffering and psychological impact of this disease in the lives of those affected.

Although this is a fairly common disease, it is remarkable and, at the same time, incomprehensible lack of extant information. Many people say it is not a disease, that it does not require monitoring and medical treatment, which is totally wrong. The truth is, most often, it is this lack of information that leads to the disease take quite serious proportions. The delay in seeking medical help exacerbates injury, contributes to enhance the psychological factors and decreases the amount of therapeutic strategies to employ.

Nowadays, due to the state of the economy, more and more people are forced to set priorities, the same level of health, and must some aspects are overlooked. Give more priority to the treatment of conditions with greater physical and debilitating impact, than those who only carry visual and psychological changes. Dermatology consultations are not accessible in monetary terms to all persons and own therapeutic strategies are quite expensive and some not reimbursed by the state. Although it is a specific pathology of the medical community of dermatology, it is noteworthy that any doctor, even general practitioners, is able to diagnose and treat this type of pathology. The same goes for surgical treatments, which are mostly expensive and are not reimbursed as it is considered an aesthetic intervention. The impact of scars is so large and disfiguring form that many patients resort to treatments in aesthetic centers and non-certified staff not enabled. This is due to low prices, compared to medically performed, lack of supervision and control and despair of patients.

It is a public health problem that could jeopardize a high number of patients. This raises another big problem in the field of dermatology, as this does not allow equal access to treatment for all patients.

The sooner we proceed to the treatment of disease, fewer physical and psychological impacts and lower the cost of therapy. Here, pharmacy technicians play a key role in guiding patients in the passage of information about the disease, the formulations counseling or not subject to prescribe medical or cosmetic, available at the pharmacy for the treatment of acne lighter in monitoring treatments, to clarify doubts and precautions to drugs.

It is known that in pharmacological terms, namely topical treatment, there are few alternatives that are effective alone during the course of the disease. Treatments are most aggressive and sensitizing, causing skin discomfort, which often leads to withdrawal or alteration of dosage for self-recreation. It is also important to develop studies for the creation of new

effective substances with high tolerability, fewer side effects and accessible to the entire population.

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